



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,891	11/04/2003	Mayu Yamada	244823US90	3487
22850	7590	06/25/2009		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER				
SAFAIPOUR, BOBBAK				
ART UNIT		PAPER NUMBER		
2618				
NOTIFICATION DATE		DELIVERY MODE		
06/25/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
oblonpat@oblon.com  
jgardner@oblon.com

### Office Action Summary

**Application No.**

10/699,891

**Applicant(s)**

YAMADA ET AL.

**Examiner**

BOBBAK SAFAIPOUR

**Art Unit**

2618

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 2, 5, 6, 9 and 12-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-2, 5-6, 9, 12-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

This Action is in response to Applicant's response filed on 03/26/2009. Claims 3-4, 7-8 and 10-11 have been cancelled.

Claims 1-2, 5-6, 9 and 12-14 are still pending in the present application. **This action is made FINAL.**

### *Response to Arguments*

Applicant's argue that Hayama, even if combined with Davidson, fails to teach or suggest "hold[ing] layered data and a corresponding radio resource amount **indicating at least one of a number of channels, a number of multiplexed codes or a transmission power required for transmitting the layered data**" and "**compar[ing] area resource information indicating at least one of an available number of channels, an available number of multiplexed codes or an available transmission power** for respective radio areas covered by base stations with the radio resource amount held in the holding unit" and "determine[ing], from layered data of a highest layer, at least one layered data of which the radio resource held in the holding unit satisfies the area resource information" as recited in amended independent Claim 1.

The Examiner respectfully disagrees. Davidson clearly discloses a resource restriction flag 396 value of Y indicates a restriction on upgrading due to a lack of radio resources. This flag can be set to Y when the MSC/VLR 340 determines that the serving BTS 320 is operating at a given capacity, such that assigning more traffic channels to the MS 310 may result in performance loss of the system (*read as indicating at least a number of channels*), e.g., blocking of other MSs from access, etc. A traffic channel availability flag 398 value of N indicates that the

MS 310 is already operating at the maximum allowable number (*read as comparing*) of channels (*read as comparing area resource information indicating number of channels*), e.g., the maximum number of channels that this particular MS 310 subscriber has agreed to pay for.

As a result, the argued features are written such that they read upon the cited references; therefore, the previous rejection still applies.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claims 1-2, 5-6, 9 and 12-14** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hayama et al (US 7,006,484)** in view of **Davidson et al. (US 6,483,820 B1; hereinafter Davidson).**

Consider **claim 1**, Hayama et al disclose a mobile communication system comprising:

a holding unit configured to hold layered data and a corresponding radio resource amount required for transmitting the layered data (figure 2; col. 5, lines 29-48);

a determination unit configured to compare area resource information indicating a currently available radio resource amount for respective radio areas covered by base station with the radio resource amount held in the holding unit, and to determine, from layered data of a highest layer, at least one layered data of which the radio resource held in the holding unit satisfies the area radio resource amount (figure 2; col. 1, lines 44-67; col. 3, lines 1-43; and col. 5, lines 29-67)

a radio transmitter configured to transmit the at least one layered data determined by the determination unit from the base station to the mobile stations (col. 2, lines 12-13).

Hayama fails to specifically disclose holding layered data and a corresponding radio resource amount indicating at least one of a number of channels, a number of multiplexed codes or a transmission power required for transmitting the layered data and comparing area resource information indicating at least one of an available number of channels, an available number of multiplexed codes or an available transmission power for respective radio areas covered by base stations with the radio.

In related art, Davidson discloses holding layered data and a corresponding radio resource amount indicating at least one of a number of channels (read as traffic channels), a number of multiplexed codes or a transmission power required for transmitting the layered data and comparing area resource information indicating at least one of an available number of channels, an available number of multiplexed codes or an available transmission power for

respective radio areas covered by base stations with the radio. (figure 4; col. 6, lines 39-55; A resource restriction flag 396 value of Y indicates a restriction on upgrading due to a lack of radio resources. This flag can be set to Y when the MSC/VLR 340 determines that the serving BTS 320 is operating at a given capacity, such that assigning more traffic channels to the MS 310 may result in performance loss of the system, e.g., blocking of other MSs from access, etc. A traffic channel availability flag 398 value of N indicates that the MS 310 is already operating at the maximum allowable number of channels, e.g., the maximum number of channels that this particular MS 310 subscriber has agreed to pay for.)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Davidson into the teachings of Hayama to provide dynamic demand based management of traffic channel allocation in a mobile communications network providing high speed data services.

Consider **claim 2**, Hayama et al disclose a radio network controller comprising:

- a holding unit configured to hold layered data and a corresponding radio resource amount required for transmitting the layered data (figure 2; col. 5, lines 29-48);
- a determination unit configured to compare area resource information indicating a currently available radio resource amount for respective radio areas covered by base station with the radio resource amount held in the holding unit, and to determine, from layered data of a highest layer, at least one layered data of which the radio resource held in the holding unit

satisfies the currently available radio resource amount (figure 2; col. 1, lines 44-67; col. 3, lines 1-43; and col. 5, lines 29-67) and

a data transmitter configured to transmit the at least one layered data determination by the determination unit to the respective base stations (col. 2, lines 12-13).

Hayama fails to specifically disclose holding layered data and a corresponding radio resource amount indicating at least one of a number of channels, a number of multiplexed codes or a transmission power required for transmitting the layered data and comparing area resource information indicating at least one of an available number of channels, an available number of multiplexed codes or an available transmission power for respective radio areas covered by base stations with the radio.

In related art, Davidson discloses holding layered data and a corresponding radio resource amount indicating at least one of a number of channels (read as traffic channels), a number of multiplexed codes or a transmission power required for transmitting the layered data and comparing area resource information indicating at least one of an available number of channels, an available number of multiplexed codes or an available transmission power for respective radio areas covered by base stations with the radio. (figure 4; col. 6, lines 39-55; A resource restriction flag 396 value of Y indicates a restriction on upgrading due to a lack of radio resources. This flag can be set to Y when the MSC/VLR 340 determines that the serving BTS 320 is operating at a given capacity, such that assigning more traffic channels to the MS 310 may result in performance loss of the system, e.g., blocking of other MSs from access, etc. A traffic channel availability flag 398 value of N indicates that the MS 310 is already operating at the

maximum allowable number of channels, e.g., the maximum number of channels that this particular MS 310 subscriber has agreed to pay for.)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Davidson into the teachings of Hayama to provide dynamic demand based management of traffic channel allocation in a mobile communications network providing high speed data services.

Consider **claim 6**, Hayama et al disclose a base station comprising:

a holding unit configured to hold layered data and a corresponding radio resource amount required for transmitting the layered data (figure 2; col. 5, lines 29-48);

a determination unit configured to compare area resource information indicating a currently available radio resource amount for respective radio areas covered by base station with the radio resource amount held in the holding unit, and to determine, from layered data of a highest layer, at least one layered data of which the radio resource held in the holding unit satisfies the currently available radio resource amount (figure 2; col. 1, lines 44-67; col. 3, lines 1-43; and col. 5, lines 29-67)

a radio transmitter configured to transmit the at least one layered data determined by the determination unit from the base station to the mobile stations (col. 2, lines 12-13).

Hayama fails to specifically disclose holding layered data and a corresponding radio resource amount indicating at least one of a number of channels, a number of multiplexed codes or a transmission power required for transmitting the layered data and comparing area resource



information indicating at least one of an available number of channels, an available number of multiplexed codes or an available transmission power for respective radio areas covered by base stations with the radio.

In related art, Davidson discloses holding layered data and a corresponding radio resource amount indicating at least one of a number of channels (read as traffic channels), a number of multiplexed codes or a transmission power required for transmitting the layered data and comparing area resource information indicating at least one of an available number of channels, an available number of multiplexed codes or an available transmission power for respective radio areas covered by base stations with the radio. (figure 4; col. 6, lines 39-55; A resource restriction flag 396 value of Y indicates a restriction on upgrading due to a lack of radio resources. This flag can be set to Y when the MSC/VLR 340 determines that the serving BTS 320 is operating at a given capacity, such that assigning more traffic channels to the MS 310 may result in performance loss of the system, e.g., blocking of other MSs from access, etc. A traffic channel availability flag 398 value of N indicates that the MS 310 is already operating at the maximum allowable number of channels, e.g., the maximum number of channels that this particular MS 310 subscriber has agreed to pay for.)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Davidson into the teachings of Hayama to provide dynamic demand based management of traffic channel allocation in a mobile communications network providing high speed data services.

Consider **claim 12**, Hayama et al disclose a communication method used in mobile communication system which comprises a holding unit configured to hold layered data and a corresponding radio resource amount required for transmitting the layered data (figure 2; col. 5, lines 29-48), the communication method comprising;

a determination unit configured to compare area resource information indicating a currently available radio resource amount for respective radio areas covered by base station with the radio resource amount held in the holding unit, and to determine, from layered data of a highest layer, at least one layered data of which the radio resource held in the holding unit satisfies the currently available radio resource amount (figure 2; col. 1, lines 44-67; col. 3, lines 1-43; and col. 5, lines 29-67) and

transmitting the at least one layered data determined in the determining step to the mobile stations (col. 2, lines 12-13).

Hayama fails to specifically disclose holding layered data and a corresponding radio resource amount indicating at least one of a number of channels, a number of multiplexed codes or a transmission power required for transmitting the layered data and comparing area resource information indicating at least one of an available number of channels, an available number of multiplexed codes or an available transmission power for respective radio areas covered by base stations with the radio.

In related art, Davidson discloses holding layered data and a corresponding radio resource amount indicating at least one of a number of channels (read as traffic channels), a number of multiplexed codes or a transmission power required for transmitting the layered data and comparing area resource information indicating at least one of an available number of

channels, an available number of multiplexed codes or an available transmission power for respective radio areas covered by base stations with the radio. (figure 4; col. 6, lines 39-55; A resource restriction flag 396 value of Y indicates a restriction on upgrading due to a lack of radio resources. This flag can be set to Y when the MSC/VLR 340 determines that the serving BTS 320 is operating at a given capacity, such that assigning more traffic channels to the MS 310 may result in performance loss of the system, e.g., blocking of other MSs from access, etc. A traffic channel availability flag 398 value of N indicates that the MS 310 is already operating at the maximum allowable number of channels, e.g., the maximum number of channels that this particular MS 310 subscriber has agreed to pay for.)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Davidson into the teachings of Hayama to provide dynamic demand based management of traffic channel allocation in a mobile communications network providing high speed data services.

Consider **claim 5**, and as applied to **claim 2 above**, Hayama et al, as modified by Davidson, disclose the claimed invention wherein a resource information receiver configured to receive the area resource information from the base stations, wherein the determination unit is configured to determine the at least one layered data based on the area resource information received by the resource information receiver (figures 2-4, 7A-7D; col. 2, lines 1-13, 25-43; col. 5, line 49 to col. 6, line 37).

Consider **claim 9**, and **as applied to claim 6 above**, Hayama et al, as modified by Davidson, disclose the claimed invention wherein a resource information collection unit configured to collect the area resource information, wherein the determination unit is configured to determine the at least one layered data, based on the area resource information collected by the resource information collection unit (figures 2-4, 7A-7D; col. 2, lines 1-13, 25-43; col. 5, line 49 to col. 6, line 37).

Consider **claim 13**, and **as applied to claim 2 above**, Hayama et al, as modified by Davidson, disclose the claimed invention wherein the area resource information is at least one of radio resources capacity for the respective radio areas covered by the base stations and radio resources amount currently available for the respective radio areas. (figures 2-4, 7A-7D; col. 1, lines 44-67; col. 2, lines 1-13, 25-43; col. 3, lines 1-43; col. 5, line 49 to col. 6, line 37)

Consider **claim 14**, and **as applied to claim 10 above**, Hayama et al, as modified by Davidson, disclose the claimed invention wherein the area resource information is at least one of radio resources capacity for the respective radio areas covered by the base station and radio resources amount currently available for the respective radio areas. (figures 2-4, 7A-7D; col. 1, lines 44-67; col. 2, lines 1-13, 25-43; col. 3, lines 1-43; col. 5, line 49 to col. 6, line 37)

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any response to this Office Action should be **faxed to** (571) 273-8300 **or mailed to:**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Hand-delivered responses** should be brought to

Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Bobbak Safaipoor whose telephone number is (571) 270-1092. The Examiner can normally be reached on Monday-Friday from 9:00am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Matthew Anderson can be reached on (571) 272-4177. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

/Bobbak Safaipoor/  
Examiner, Art Unit 2618

June 18, 2009

/Matthew D. Anderson/  
Supervisory Patent Examiner, Art Unit 2618